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Bismuth oxide
Selective oxidation of methane to ethane and ethene with metal oxides in molten metals. Fujimoto et al., 67(1991)L21

Bismuth promotion
Liquid phase oxidation of 1-methoxy-2-propanol with air. I. Lead and bismuth promotion and deactivation of palladium catalysts. Baiker et al., 79(1991)41

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Effect of pressure on the oxidative coupling reaction of methane. Ekstrom et al., 62(1990)253

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Properties and applications of boron-containing pentasil type zeolites. Wendlandt et al., 66(1990)111

Boron trifluoride
$BF_3.H_3PO_4$ catalyst preparation and use in the alkylation of naphthalene with propene. Calik et al., 66(1990)25

Brønsted acid sites
Role of WO_3 in mixed V_2O_5–WO_3/TiO_2 catalysts for selective catalytic reduction of nitric oxide with ammonia. Yang et al., 80(1992)135

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Silicon species in a SAPO-5 molecular sieve. Wang et al., 72(1991)39

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Measurement of gas–liquid mass transfer in multiphase reactors. A Review. Lee et al., 63(1990)1

1,3-Butadiene hydrogenation
Modifications of surface properties of nickel/silica catalysts by nitrogen-containing compounds. II. Piperidine, 3,5 dimethyl piperidine and pyridine. Borgna et al., 80(1992)115

Butane
Kinetic study of n-butane aromatization on ZSM-5 and gallium bearing ZSM-5 catalysts. Le Van Mao et al., 79(1991)77

n-Butane
Oxidation states of vanadium in V-P-O oxidation catalysts: 31P NMR by spin-echo mapping. Li et al., 73(1991)83

n-Butane dehydrogenation
Reactor studies using alumina separation membranes for the dehydrogenation of methanol and n-butane. Zaspalis et al., 74(1991)223

n-Butane oxidation
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Butanol dehydration
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Catalytic and acidic properties of silica–alumina prepared by chemical vapour deposition. Sato et al., 62(1990)73

Butene dimerization
Dimerization of n-butenes on amorphous NiO–Al_2O_3/SiO_2 catalysts. Kiessling et al., 71(1991)69

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Catalytic properties of hydrated tantalum oxide. Ushikubo et al., 67(1990)25

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Effect of steam on the oxidative dehydrogenation of butene over magnesium ferrites with and without chromium substitution. Yang et al., 70(1991)161

Butenes
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Industrial scale selective high-temperature conversion of 2-butene to 1-butene. I. Development of catalysts. Forlani et al., 67(1991)237

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Butyl aromatic amines, *N*-tert.-

Synthesis of *N*-tert.-butyl aromatic amines via heterogeneous acid catalysis. Dixon et al., 62(1990)161

Butyl phthalate

Infrared spectral characterization of supported propene polymerization catalysts. A link to catalyst performance. Arzoumanidis et al., 76(1991)221

2-methyl-3-Butyn-2-ol reactivity

Methylbutynol: a new and simple diagnostic tool for acidic and basic sites of solids. Lauron-Pernot et al., 78(1991)213

Butyraldehyde

Gas phase aldol condensation of n-butyraldehyde to 2-ethylhexenal. Moggi et al., 68(1991)285

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C_2 hydrocarbons

Oxidative conversion of methane to C_2 hydrocarbons over Li, Mn, Cd and Zn promoted MgO catalysts II: Performance of fresh and reoxidised catalysts in the absence of free oxygen. Choudhary et al., 69(1991)187

C_4 hydrocarbons

Synergy in $CdMoO_4/MoO_3$ catalysts in partial oxidation reactions of C_4 hydrocarbons. Ozkan et al., 62(1990)105

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Cadmium–molybdenum oxide

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Side-chain alkylation of *p*-xylene with methanol on alkali cation zeolites. Yang et al., 71(1991)45

Effect of barium addition on the ammonia synthesis activity of cesium promoted ruthenium catalyst supported on carbon-covered alumina (CCA). Rama Rao et al., 73(1991)L1

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Effect of carbon tetrachloride as a feedstream additive in the oxidative coupling of methane on alkali oxide/SiO_2 catalysts. Ahmed et al., 63(1990)129

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Preparation of vanadium phosphorus oxide catalysts: Influence of macroscopic P:V ratio in determining phase composition after calcination. O'Connor et al., 64(1990)161

Activation of silica-supported nickel catalyst through surface modification of the support. Guo et al., 65(1990)31

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Influence of the method of alumina modification on formation of low-temperature solid solutions on magnesia–alumina systems. Koryabkina et al., 72(1991)63

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Mechanistic model for the catalytic cracking of n-hexane over calcium aluminate catalysts for producing light alkenes. Lemonidou et al., 69(1991)105

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Pyrolysis products dependence on the nature of heavy hydrocarbon feedstock. Basily et al., 73(1991)125

Calcium oxide–cerium oxide
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Catalytic activities of hydrogen storage alloys for decomposition of alcohols. Imai et al., 62(1990)348

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Selectivity to cyclohexene in the gas phase hydrogenation of benzene over ruthenium, as influenced by reaction modifiers. III. FT–IR study of the interaction between the reaction modifiers and cyclohexene. Struyk et al., 62(1990)151

Carbon
Catalytic cracking of organic amides. I. Production of *N*-vinylformamide. Parris et al., 78(1991)45

Nature of the catalytically active carbonaceous sites for the oxydehydrogenation of ethylbenzene to styrene: A brief review. Vrieland et al., 77(1991)1

Carbon coating
New type of carbon coated alumina supports for the preparation of highly active ruthenium catalysts for ammonia synthesis. Rama Rao et al., 62(1990)L19

Carbon deposition
High-resolution electron microscopy study of the carbon deposit morphology on nickel catalysts. Tracz et al., 66(1990)133

Carbon dioxide
Carbon dioxide reforming of methane with supported rhodium. Richardson et al., 61(1990)293

Modelling of the inhibiting effect of carbon dioxide on the selective oxidation of ethene over silver catalyst. Eliyas et al., 62(1990)11

Copper surface area and activity in $CO/H_2/CO_2$ of $Cu/ZnO/Al_2O_3$ methanol synthesis catalysts. Robinson et al., 63(1990)165

Effects of addition of chromium, manganese or molybdenum to iron catalysts for carbon dioxide hydrogenation. Lee et al., 72(1991)267

Carbon dioxide addition
Influence of carbon dioxide addition upon decay of activity of a potassium-promoted iron oxide catalyst for dehydrogenation of ethylbenzene. Matsui et al., 67(1991)179

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Carbon dioxide hydrogenation on rhodium supported on transition metal oxides: Effect of reduction temperature on product distribution. Trovarelli et al., 65(1990)129

Conversion of carbon oxide(s) on carbon-supported, nickel–rare earth catalysts. Barrault et al., 67(1991)257

Carbon dioxide methanation
DRIFTS study of adsorbed formate species in the carbon dioxide and hydrogen reaction over rhodium catalysts. Benitez et al., 71(1991)219

Carbon fibre
Catalytic oxidation of hydrogen sulphide by air over activated carbon fibre. Choi et al., 79(1991)241

Carbon modification
Activated carbon as a support for heteropolyanion catalysts. Schwegler et al., 80(1992)41

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Kinetics of cross-desorption of carbon monoxide by the influence of ethyne over palladium/alumina. Cider et al., 68(1991)207

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Methanol conversion to hydrocarbons: Investigation of the possible role of carbon monoxide in the formation of the initial carbon–carbon bond. Hutchings et al., 67(1990)L5

Hydrogenation of carbon monoxide over the mixed catalysts composed of cobalt–nickel/manganese oxide–zirconium oxide and zeolite catalysts. Ishihara et al., 75(1991)225

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Carbon monoxide chemisorption

Effect of chromium addition on the behaviour of iron/activated carbon catalysts for carbon monoxide hydrogenation. Rodriguez-Reinoso et al., 77(1991)95

Carbon monoxide hydrogenation

Bimetallic catalysts comprised of dissimilar metals for the reduction of carbon monoxide with hydrogen. Foley et al., 61(1990)351

Catalytic properties of NiX zeolites in the presence of cerium additives. Chien et al., 61(1990)45

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Liquid phase hydrogenation of carbon monoxide over potassium-promoted ultrafine particles of iron and copper. Itoh et al., 67(1990)1

Liquid phase Fischer–Tropsch synthesis on ultrafine particles of iron: Effect of preoxidation treatment. Itoh et al., 67(1991)215

Conversion of carbon oxide(s) on carbon-supported, nickel–rare earth catalysts. Barrault et al., 67(1991)257

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Carbon monoxide hydrogenation over Na–Mn–Ni catalysts: Effects of preparation methods on the C_2+ oxygenate selectivity. Chuang et al., 70(1991)101

Formation of carbonaceous deposit and its effect on carbon monoxide hydrogenation on iron-based catalysts. Machocki, 70(1991)237

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Effect of chromium addition on the behaviour of iron/activated carbon catalysts for carbon monoxide hydrogenation. Rodriguez-Reinoso et al., 77(1991)95

Carbon monoxide hydrogenation over iron oxide, subjected to shear deformation under high pressure: role of vacancies. Morozova et al., 78(1991)227

Hydrocarbon synthesis from carbon monoxide and hydrogen on impregnated cobalt catalysts. I. Physicochemical properties of 10% cobalt/alumina and 10% cobalt/silica. Lapidus et al., 73(1991)65

Effects of the interaction of dispersed metal particles with the support in catalysts prepared using organometallic compounds. VI. Study of the state of components in $(Pd + Zr)/SiO_2$. Ryndin et al., 63(1990)51

Adsorption and catalytic properties of Pd/SiO_2, Cu/SiO_2, and $Pd–Cu/SiO_2$ systems. III. Carbon mono-

xide and benzene hydrogenation over Pd–Cu/SiO_2 catalysts. Leon y Leon et al., 69(1991)305

Carbon monoxide methanation

Catalysis of carbon monoxide methanation by deep sea manganate minerals. Cabrera et al., 64(1990)309

Carbon monoxide oxidation

Effects of sulfur on noble metal automotive catalysts. Gandhi et al., 77(1991)175

Preparation and characterization of porous silica spheres containing a copper (oxide) catalyst. Van der Grift et al., 65(1990)225

Changes in alumina supported copper–chromite catalysts by the introduction of water during carbon monoxide oxidation. Laine et al., 65(1990)253

Calcination conditions on copper/alumina catalysts for carbon monoxide oxidation and nitric oxide reduction. Huang et al., 71(1991)275

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Amorphous nickel–base alloy catalysts for oxidation of carbon monoxide by oxygen and nitric oxide. Teruuchi et al., 76(1991)79

Carbon oxides

Methane oxidative coupling to C_2 hydrocarbons over lanthanum promoted barium catalysts. Zhang et al., 62(1990)L29

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Carbon support

Heteropolyacids as catalysts for the production of phthalate diesters. Schwegler et al., 74(1991)191

Comparison of carbon and alumina supported nickel–molybdenum sulphide catalysts in parallel hydrodenitrogenation and hydrodesulphurization. Hillerová et al., 67(1991)231

Influences of surface modification of carbon supports on the nickel-catalyzed vapor phase carbonylation of methanol. Bischoff et al., 75(1991)45

Carbon tetrachloride

Effect of carbon tetrachloride as a feedstream additive in the oxidative coupling of methane on alkali oxide/SiO_2 catalysts. Ahmed et al., 63(1990)129

Infrared spectroscopic study of adsorption of phosgene and carbon tetrachloride on zeolites: Fermi resonance. Hannus et al., 66(1990)L7

Carbon–alumina

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Carbonaceous deposit

Formation of carbonaceous deposit and its effect on carbon monoxide hydrogenation on iron-based catalysts. Machocki, 70(1991)237

Carbonaceous species

Effect of carbonaceous species on the catalytic activity of copper–nickel in the hydrogenation of ethene. Takayasu et al., 71(1991)33

Carbonate formation

Oxidative coupling of methane over praseodymium oxide catalysts. Poirier et al., 71(1991)103

Carbonyl sulphide

Kinetic study of the carbonyl sulphide synthesis from carbon dioxide and carbon disulphide on alumina catalysts. Nemeth et al., 64(1990)143

Carbonylation

Promoting effects of alkaline earth oxides on vapor phase carbonylation of ethene over cluster-derived cobalt catalysts. Takeuchi et al., 73(1991)281

Carburization

Effect of metal–support reaction on carburization of supported catalysts. I. Palladium on silica. Kepinski et al., 73(1991)173

Catalyst characterization (electrochemical measurements,

STEM, XPS, XRD)

Liquid phase oxidation of 1-methoxy-2-propanol with air. II. Structure and chemical properties of lead-promoted palladium catalysts. Baiker et al., 79(1991)59

Catalyst characterization (31P NMR)
Oxidation states of vanadium in V-P-O oxidation catalysts: 31P NMR by spin-echo mapping. Li et al., 73(1991)83

Catalyst characterization (AAS, BET, zeta potential)
Preparation and characterization by electrophoretic migration of TiO_2–Al_2O_3 catalytic supports. Gil Llimbas et al., 65(1990)45

Catalyst characterization (AAS, SEM, XRD, TPD, RAI)
Conversion of ethanol in aqueous solution over ZSM-5 zeolites: Influence of reaction parameters and catalyst acidic properties as studied by ammonia TPD technique. Le Van Mao et al., 61(1990)161

Catalyst characterization (Acid site determination)
Cracking of n-heptane and fluorinated γ-alumina catalysts in the presence of hydrogen: Catalytic activity and nature of acid active sites. Corma et al., 61(1990)175

Catalyst characterization (acidity)
Hydroconversion of n-heptane on catalysts containing platinum–rhenium on sodium mordenite. Aboul-Gheit et al., 61(1990)283

Study of phosphorus-modified aluminum pillared montmorillonite. I. Effect of the nature of phosphorus compounds. Shen et al., 67(1990)93

Industrial scale selective high-temperature conversion of 2-butene to 1-butene. I. Development of catalysts. Forlani et al., 67(1991)237

Characterization of acid catalysts by means of model reactions. I. Acid strength necessary for the catalysts of various hydrocarbon reactions. Bourdillon et al., 61(1990)123

Catalyst characterization (adsorption, AEM)
Conversion of carbon oxide(s) on carbon-supported, nickel–rare earth catalysts. Barrault et al., 67(1991)257

Catalyst characterization (adsorption, desorption)
Promotion of Pt/Al_2O_3 catalysts with chromium ions and investigation of the changes in their hydrogenating/dehydrogenating activity. Vlaev et al., 63(1990)293

Catalyst characterization (adsorption, FT-IR, TPD)
Acid–base properties of silica–aluminas: Use of 1-butanol dehydration as a test reaction. Berteau et al., 70(1991)307

Catalyst characterization (adsorption, IR, NMR)
Interaction of zeolite alumina with matrix silica in catalytic cracking catalysts. Corma et al., 66(1990)45

Catalyst characterization (adsorption, isoelectric point,
TPR, TPSR)
Effect of alumina supports on the properties of supported nickel catalysts. Chen et al., 73(1991)289

Catalyst characterization (adsorption, microscopy, TPD, XRD, XPS)
Titania-modified hydrodesulphurization catalysts. I. Effect of preparation techniques on morphology and properties of TiO_2–Al_2O_3 carrier. Wei et al., 63(1990)305

Catalyst characterization (adsorption, Mössbauer)
spectroscopy, XRD)
Preparation and adsorption, chemical and catalytic properties of iron boride Fischer–Tropsch catalysts. Wang et al., 62(1990)221

Catalyst characterization (adsorption, Mössbauer spectroscopy, TPR, TPS)
Influence of phosphate on the structure of sulfided alumina supported cobalt–molybdenum catalysts. Magnus et al., 68(1991)161

Catalyst characterization (adsorption, TPR, XPS, XRD)
Influences of surface modification of carbon supports on the nickel-catalyzed vapor phase carbonylation of methanol. Bischoff et al., 75(1991)45

Catalyst characterization (adsorption, XRD)

Selective conversion of syngas to alkenes and aromatic-rich gasoline on iron–manganese–ruthenium containing composite catalysts. Inui et al., 61(1990)219

Oxidation of *o*-xylene over vanadium–porous titania glass catalysts. Hong et al., 75(1991)237

Shape selective catalysis by zeolite KZ-1: Synthesis, characterization and isomerization of *m*-xylene. Rane et al., 75(1991)281

Catalyst characterization (AEM, TPR, XPS, XRD)

Titania-modified hydrodesulfurization catalysts. Part 2. Dispersion state and catalytic activity of MoO_3 supported on titania–alumina carrier. Wei et al., 75(1991)179

Catalyst characterization (AES, BET, Mössbauer

spectroscopy, SEM, XRD)

Effects of the method of preparation of MgC_2O_4 as a support precursor on the properties of iron/magnesium oxide catalysts. Putanov et al., 73(1991)17

Catalyst characterization (AES, CO adsorption, XPS)

Dehydrogenation of methanol to methyl formate over copper-containing perovskite-type oxides. Rodriguez-Ramos et al., 68(1991)217

Catalyst characterization (BET, EDX, TEM, XRD)

Stabilization of alumina by addition of lanthanum. Beguin et al., 75(1991)119

Catalyst characterization (BET, IR, XRD)

Catalytic cracking properties of Al-Zr-B composite pillared clays. Xu et al., 75(1991)33

Catalyst characterization (BET, LRS, SEM, XRD)

Synergy in $CdMoO_4/MoO_3$ catalysts in partial oxidation reactions of C_4 hydrocarbons. Ozkan et al., 62(1990)105

Catalyst characterization (BET, nitric oxide decomposition)

New vanadium–copper–zinc catalysts, their characterization and use in the catalytic dehydrogenation of ethanol. Kanoun et al., 70(1991)225

Catalyst characterization (BET, TPD, acidity)

Conversion of chloromethane over metal-exchanged ZSM-5 to higher hydrocarbons. Lersch et al., 75(1991)133

Catalyst characterization (BET, XPS)

Effect of calcination and water extraction on the distribution of the active components in the oxide form of phosphorus–nickel–molybdenum/alumina catalyst for hydrodesulfurization. Atanasova et al., 65(1990)53

Catalyst characterization (BET, XRD)

Gallium containing pillared interlayer clays: Preparation, characterization and catalytic properties. Bellaloui et al., 63(1990)L7

Selective steam reforming of alkylated hydrocarbons and coal liquids over $NiO–Fe_2O_3$ catalysts. Yamamoto et al., 64(1990)55

Catalyst characterization (BET)

Effect of the nature of promoting chromium-containing compounds on the isomerization and dehydrocyclization activities of $Pt–Cr/Al_2O_3$ catalysts. Vlaev et al., 65(1990)11

Catalyst characterization (calorimetry, XPS)

Oxidation state of the surface of palladium in the catalytic combustion of hydrogen. Jones et al., 70(1991)277

Catalyst characterization (chemometrics)

Application of chemometric tools to catalysis: Carbon monoxide hydrogenation on a multipromoted Rh/SiO_2 catalyst. Henrion et al., 62(1990)23

Catalyst characterization (chromatography)

Chromatographic determination of effective diffusivities of Raschig ring-shaped catalyst: Radial anisotropy of pellets. Davidova et al., 66(1990)167

Catalyst characterization (DRIFTS)
DRIFTS study of adsorbed formate species in the carbon dioxide and hydrogen reaction over rhodium catalysts. Benitez et al., 71(1991)219

Catalyst characterization (DRS, DTA, ESR, XPS)
Solid–solid interaction and electronic properties of copper–zinc oxide catalysts. Sengupta et al., 68(1991)1

Catalyst characterization (DRS, EPR, TGA, XPS, XRD)
Synthesis and characterization of the vanadium-incorporated molecular sieve VAPO-5. Jhung et al., 62(1990)61

Catalyst characterization (DRS, HREM)
Promoting effect of fluorine on cobalt–molybdenum/titania hydrodesulfurization catalysts. Ramirez et al., 71(1991)351

Catalyst characterization (DTA, FT-IR, ICP, TPD, XRD)
Synthesis of zeolite β and catalytic isomerization of n-hexane over Pt/H-β catalysts. Leu et al., 69(1991)49

Catalyst characterization (DTA, IR, SEM, XRD)
Synthesis and characterization of iron-modified ZSM-5. Kim et al., 71(1991)55

Catalyst characterization (DTA, TG, TEM, XRD, nitrogen
physisorption)
Stabilized tetragonal zirconium oxide as a support for catalysts. Evolution of the texture and structure on calcination in static air. Mercera et al., 78(1991)79

Catalyst characterization (EDS, STEM, XPS)
Bimetallic catalysts comprised of dissimilar metals for the reduction of carbon monoxide with hydrogen. Foley et al., 61(1990)351

Catalyst characterization (electrochemical polarization)
Relationship between selectivity and hydrogen sorption of carbon-supported palladium catalysts. Polyanszky et al., 62(1990)335

Reduction of propionitrile to propionaldehyde on supported palladium catalysts. II. Optimum in selectivity. Mallat et al., 66(1990)91

Catalyst characterization (EM, ESCA, XRD)
Characterization of the standard nickel/silica catalyst EuroNi-1. III. Investigations of catalyst structure. Coenen, 75(1991)193

Catalyst characterization (EPMA)
Co-impregnation of rhodium chloride with hydrofluoric acid into dry and pre-wet alumina. Hepburn et al., 71(1991)205

Improvements to Raney copper methanol synthesis catalysts through zinc impregnation. I Electron microprobe analysis. Curry-Hyde et al., 77(1991)75

Catalyst characterization (ESCA)
Effect of metal-organic compounds on thiophene hydrodesulphurization over sulphided Co(Ni)Mo/Al_2O_3 catalysts. Sarbak et al., 79(1991)191

Catalyst characterization (ESR, LTOC, XRD)
Characterization of supported vanadium oxide catalysts by a low-temperature oxygen chemisorption technique. III. The V_2O_5/ZrO_2 system. Chary et al., 74(1991)1

Catalyst characterization (ESR, Raman, XPS)
Methane oxidative coupling to C_2 hydrocarbons over lanthanum promoted barium catalysts. Zhang et al., 62(1990)L29

Catalyst characterization (ESR, TPR, XRD)
Effect of sulfiding temperatures on the formation of sulfides of Mo/Al_2O_3 and CoMo/Al_2O_3. Kim et al., 74(1991)109

Catalyst characterization (EXAFS, IR, NMR, XPS)
Recent progress in catalytic technology in Japan – a Review. Misono et al., 64(1990)1

Catalyst characterization (EXAFS, Mössbauer, TPR, TPD, FT-IR)
Chemical interaction of palladium particles with iron cations in NaY. Homeyer et al., 64(1990)225

Catalyst characterization (EXAFS, TEM, TPD, TPR, XPS)
Phosphorus promotion of Mo/Al_2O_3 hydrotreating catalysts. Sajkowski et al., 62(1990)205

Catalyst characterization (extraction, TEM)
Dispersion of platinum on silica and alumina by chemical extraction. Yang et al., 61(1990)75

Catalyst characterization (FT-IR, Raman, TPR)
Structure of phosphorus containing $CoO–MoO_3/Al_2O_3$. Mangnus et al., 61(1990)99

Catalyst characterization (FT-IR, TEM, XRD)
Effects of crystallinity and morphology on the surface properties of alumina. Nortier et al., 61(1990)141

Catalyst characterization (FT-IR)
Diffuse reflectance Fourier-transform IR studies on the role of catalyst support on selectivity in ethene oxidation. Connor et al., 71(1991)247

Catalyst characterization (FT-IR)
Fourier transform-infrared study of the adsorption and coadsorption of nitric oxide, nitrogen dioxide and ammonia on TiO_2 anatase. Ramis et al., 64(1990)243

Catalyst characterization (FT-IR, EXAFS, XPS)
Effects of the interaction of dispersed metal particles with the support in catalysts prepared using organometallic compounds. VI. Study of the state of components in $(Pd + Zr)/SiO_2$. Ryndin et al., 63(1990)51

Catalyst characterization (FT-IR, SEM, XPS, XRD)
Catalytic oxidation of cyclopentadiene over supported vanadium pentoxide–silver catalysts. Jun et al., 63(1990)267

Catalyst characterization (H MAS NMR, TPR)
Role of WO_3 in mixed $V_2O_5–WO_3/TiO_2$ catalysts for selective catalytic reduction of nitric oxide with ammonia. Yang et al., 80(1992)135

Catalyst characterization (HR-AEM, TPR)
Properties of silica-supported Cu/Co bimetallic catalysts in the synthesis of higher alcohols. Baker et al., 65(1990)281

Catalyst characterization (HREM)
High-resolution electron microscopy of spent $Ni–Mo/Al_2O_3$ hydrotreating catalysts. Van Doorn et al., 63(1990)79

High-resolution electron microscopy study of the carbon deposit morphology on nickel catalysts. Tracz et al., 66(1990)133

Catalyst characterization (hydrogen chemisorption, TPR, XRD)
Carbon monoxide hydrogenation on Co/Al_2O_3 and Co/NaX catalysts. Wang et al., 77(1991)21

Catalyst characterization (hydrogen–oxygen titration)
Coated silica as support for platinum catalyst. II. Hydrogen chemisorption and activity for combustion. Dou et al., 66(1990)235

Catalyst characterization (in-situ Raman spectrometry)
In situ Raman investigation of hydrodesulphurization catalysts. Muller et al., 77(1991)243

Catalyst characterization (IR, acidity)
Proton acidity in modified γ-alumina. Kania et al., 61(1990)27

Catalyst characterization (IR, magnetic measurements)
Modifications of surface properties of nickel/silica catalysts by nitrogen-containing compounds. Part I: Ammonia. Borgna et al., 76(1991)233

Catalyst characterization (IR, NMR, BET, TG-DTA)
Synthesis and characterization of silica–alumina prepared from tetraalkylammonium hydroxides. Corma et al., 63(1990)145

Catalyst characterization (IR, NMR, STEM, XRD)
Role of the amorphous matrix in the hydrothermal ageing of fluid catalytic cracking catalysts. Gelin et al., 72(1991)179

Catalyst characterization (IR, NMR)

Study of the state of aluminium in zeolite beta. Bourgeat-Lami et al., 72(1991)139

Catalyst characterization (IR, SIMS, TPO, XPS)

Preparation of zirconium oxide on silica and characterization by X-ray photoelectron spectroscopy, secondary ion mass spectrometry, temperature programmed oxidation and infra-red spectroscopy. Meijers et al., 70(1991)53

Catalyst characterization (IR, TG, TPD, XRD)

Characteristics and performance of SAPO-34 catalyst for methanol-to-olefin conversion. Liang et al., 64(1990)31

Catalyst characterization (IR, TGA, TPD)

Amine adsorption on H-ZSM-5. Parrillo et al., 67(1990)107

Catalyst characterization (IR, TPR, XPS, XRD)

Mechanism of sulfur poisoning of supported Pd(Pt)/Al_2O_3 catalysts for H_2–O_2 reaction. An et al., 66(1990)219

Catalyst characterization (IR, UV-Vis, XRD)

Structure of MoO_3/Al_2O_3–SiO_2 catalysts. Henker et al., 69(1991) 205

Catalyst characterization (IR, UV-VIS, XPS)

Characterization of rhodium catalysts supported on various inorganic oxides for carbon monoxide hydrogenation. Sanyal et al., 74(1991)153

Catalyst characterization (IR, XPS, XRD)

Effect of the method of preparation on the activity of nickel–Kieselguhr catalyst for vegetable oil hydrogenation. Mendioroz Echeverria et al., 66(1990)73

Catalyst characterization (IR, XRD, TPD)

Catalytic cracking of hexadecane over ZSM-5 modified with $SiCl_4$, BCl_3, NH_4F and $LaCl_3$. Li et al., 71(1991)185

Catalyst characterization (IR)

Copper as a sacrificial deposit on noble metallic catalysts. Barbier et al., 67(1990)L1

Infrared spectroscopic study of adsorption of phosgene and carbon tetrachloride on zeolites: Fermi resonance. Hannus et al., 66(1990)L7

Infrared determination of the accessible metallic surface of supported palladium containing ceria. Duplan et al., 67(1991)325

Direct synthesis of mixed metal sulfide catalysts and their hydrodenitrogenation activity. Luchziger et al., 68(1991)229

H-ZSM-5 supported Ga_2O_3 dehydrocyclisation catalysts: Infrared spectroscopic evidence of gallium oxide surface mobility. Meriaudeau et al., 73(1991)L13

Infrared spectral characterization of supported propene polymerization catalysts. A link to catalyst performance. Arzoumanidis et al., 76(1991)221

Selectivity to cyclohexene in the gas phase hydrogenation of benzene over ruthenium, as influenced by reaction modifiers. III. FT–IR study of the interaction between the reaction modifiers and cyclohexene. Struyk et al., 62(1990)151

Fourier transform-infrared study of the adsorption and coadsorption of nitric oxide, nitrogen dioxide and ammonia on vanadia–titania and mechanism of selective catalytic reduction. Ramis et al., 64(1990)259

Catalyst characterization (LRS, XPS)

Selective oxidation of propene over supported vanadium oxide catalysts. Lopez Nieto et al., 61(1990)235

Catalyst characterization (LRS, XRD)

Study of Ti–V–P–O catalysts for the selective reduction of nitric oxide in the presence of oxygen. Blanco et al., 63(1990)403

Catalyst characterization (Mössbauer spectroscopy)

Sulfidation of alumina-supported iron and iron–molybdenum oxide catalysts. Ramselaar et al., 65(1990)69

Catalyst characterization (MAS NMR, TPD, XRD)

Properties and applications of boron-containing pentasil type zeolites. Wendlandt et al., 66(1990)111

Catalyst characterization (MAS-NMR)
Multinuclear high-resolution solid-state nuclear magnetic resonance studies of amorphous silica–aluminas. Doremieux-Morin et al., 77(1991)149

Catalyst characterization (Mass spectrometry, molecular beam)
Comparative loss of alkali promoter by desorption from two catalysts for the dehydrogenation of ethylbenzene to styrene. Engvall et al., 77(1991)235

Catalyst characterization (MAT)
Effect of feedstock variability on catalytic cracking yields. Fisher, 65(1990)189

Catalyst characterization (MES, TG-DTG, TPD, TPR, TPSR, XPS, XRD)
Role of rare earth oxides and thoria as promoters in precipitated iron-based catalysts for Fischer–Tropsch synthesis. Wang et al., 77(1991)109

Catalyst characterization (Mössbauer spectroscopy)
Effects of addition of chromium, manganese or molybdenum to iron catalysts for carbon dioxide hydrogenation. Lee et al., 72(1991)267

Mössbauer spectroscopy studies of Sn–Pt/Al_2O_3 catalysts prepared by controlled surface reactions. Vertes et al., 68(1991)149

Catalyst characterization (Mössbauer, XRD)
Role of cesium in iron phosphates used in isobutyric acid oxidative dehydrogenation. Millet et al., 76(1991)209

Catalyst characterization (morphology, acid–base properties)
Industrial scale selective high-temperature conversion of 2-butene to 1-butene. II. Comparison of catalysts. Ancillotti et al., 67(1991)249

Catalyst characterization (Mössbauer spectrometry, FMR)
Study of iron/mordenite catalysts by Mössbauer and ferromagnetic resonance spectroscopy for carbon monoxide hydrogenation. Yun et al., 68(1991)97

Catalyst characterization (NMR, ESR, EPMA)
Synthesis and characterization of a thermally stable vanadium-containing silicalite. Rigutto et al., 68(1991)L1

Catalyst characterization (NMR, TG-DTA)
Synthesis of zeolite ZSM-48 in the presence of 1,8-diaminooctane and hexamethonium bromide: Analysis and ^{13}C-NMR spectroscopy. Giordano et al., 71(1991)79

Catalyst characterization (NMR, XRD)
Synthesis of $AlPO_4$-11 using long-chain secondary amines. Balakrishnan et al., 62(1990)L7

Catalyst characterization (NMR)
Characterization of zeolite Nu-10 by ^{129}Xe NMR spectroscopy. Pellegrino et al., 61(1990)L1

Characterization of montmorillonites pillared by cationic silicon species using ^{129}Xe-NMR spectroscopy. Fetter et al., 65(1990)L1

Solid-state NMR investigations of $AlPO_4$-8: Its transformation from VPI-5 and interaction with water. Stöker et al., 69(1991)L7

Interaction of vanadia with alumina and titania during ultra-high intensity grinding at room temperature as evidenced from ^{51}V NMR spectra. Sobalik et al., 63(1990)191

Catalyst characterization (SEM, BET)
Oxidative conversion of methane to C_2-hydrocarbons over lithium, manganese, cadmium and zinc promoted MgO catalysts. I. Catalyst performance in presence of free oxygen. Choudhary et al., 62(1990)171

Catalyst characterization (SEM/EDX, TPD, XRD)
Hydrogenation of carbon monoxide over cobalt–nickel alloy catalyst supported on MnO–ZrO_2 mixed oxide. Ishihara et al., 66(1990)267

Catalyst characterization (SEM)
Gas phase aldol condensation of n-butyraldehyde to 2-ethylhexenal. Moggi et al., 68(1991)285

Catalyst characterization (SIMS, XPS, XRD)
Catalytic oxidation of toluene over V_2O_5–WO_3 catalysts. Yan et al., 66(1990)149

Catalyst characterization (STEM, XPS, XRD)
Steam reforming of 1-methyl naphthalene in the presence of sulfur on nickel–tungsten alumina catalysts doped with alkaline ions. I. Effect of each active component. Bonneau et al., 74(1991)173

Catalyst characterization (surface area, XRD)
Bulk alloy formation during metal ion poisoning of palladium. Mallát et al., 69(1991)85

Synthesis and characterization of pillared montmorillonite catalysts. Pesquera et al., 69(1991)97

Catalyst characterization (surface)
Number of surface V=O species of promoted $(VO)_2P_2O_7$ catalysts. Ye et al., 69(1991)L1

Catalyst characterization (TEM)
Hydroconversion of n-nonane catalyzed by PdHY zeolites. I. Influence of catalyst pretreatment. Leglise et al., 69(1991)15

Heat-stable ultrafine single-crystal magnesium oxide and its character as a support-material for high-temperature combustion catalysts. Matsuura et al., 74(1991)273

Catalyst characterization (test reaction)
Methylbutynol: a new and simple diagnostic tool for acidic and basic sites of solids. Lauron-Pernot et al., 78(1991)213

Catalyst characterization (TGA/DTA, XRD)
Effect of tetraalkylammonium, alcohol and amine templates on the synthesis and high-pressure propene oligomerisation activity of ZSM-type zeolites. Schwarz et al., 73(1991)313

Catalyst characterization (TGA, TPD, TPR)
Reduction of sulfur dioxide and surface sulfate on γ-alumina. Woo Nam et al., 74(1991)53

Catalyst characterization (TGA, TPR)
Promoting effect of cerium oxide in supported nickel catalyst for hydrocarbon steam-reforming. Zhuang et al., 70(1991)1

Catalyst characterization (TGA, XPS)
Oxidative coupling of methane over praseodymium oxide catalysts. Poirier et al., 71(1991)103

Catalyst characterization (thermogravimetry)
Thermogravimetric study of bastnaesite under simulated SO_x transfer conditions. Andersson et al., 65(1990)21

Catalyst characterization (TPD, TPO, TPR)
Interaction of hydrogen and oxygen with niobia-supported and niobia-promoted rhodium catalysts. Hu et al., 69(1991)253

Catalyst characterization (TPD, TPR)
Temperature-programmed reduction and desorption studies of praseodymium promoted platinum/alumina catalysts. Liu et al., 71(1991)167

Promotion of hydrogen uptake in cerium dioxide. The role of iridium. Tournayan et al., 78(1991)31

Catalyst characterization (TPD, XPS, XRD, electrical conductivity)
Sulphur-resistant character of titania-supported platinum catalysts. Chen et al., 63(1990)107

Catalyst characterization (TPD, XRD)
Carbon monoxide hydrogenation over Na–Mn–Ni catalysts: Effects of preparation methods on the C_{2+} oxygenate selectivity. Chuang et al., 70(1991)101

Catalyst characterization (TPD)
Coke formation and ageing of galloaluminosilicate (ZSM-5 type zeolite). Kanai et al., 62(1990)141

Characteristic action of zirconium dioxide in the decomposition of alkylamines. Xu et al., 64(1990)41

Changes of the metallic surface of Fe/Al_2O_3 during exposure to CO/He and CO/H_2. Ahlafi et al., 66(1990)99

States of hydrogen adsorption on platinum–alumina and platinum–ceria catalysts. A temperature-programmed desorption study. Levy et al., 70(1991)263

Catalyst characterization (TPO)
Recovering of the catalytic functions of naphtha reforming catalysts by partial coke burning. Pieck et al., 70(1991)19

Deactivation of Pt–Re/Al_2O_3 catalysts with different metallic surface. Grau et al., 70(1991)9

Temperature-programmed oxidation of sulfided nickel–molybdate/alumina catalysts: Change of composition and structure of active metals. Yoshimura et al., 73(1991)39

Catalyst characterization (TPR, TG)

Stoichiometric composition of platinum, iridium and platinum–iridium catalytic precursors. Subramanian et al., 68(1991)131

Catalyst characterization (TPR, XPS, XRD, NO adsorption)

Effects of starting cobalt salt upon the cobalt–alumina interactions and hydrodesulfurization activity of CoO/Al_2O_3. Okamoto et al., 73(1991)249

Structure of unpromoted and alkali-metal promoted MnO_x-based catalysts for oxidative coupling of methane. Baronetti et al., 61(1990)311

Effect of cobalt source on the reduction properties of silica-supported cobalt catalysts. Rosynek et al., 73(1991)97

Characterization of a potassium-promoted cobalt–molybdenum/alumina water–gas shift catalyst. Xie et al., 77(1991)187

Catalyst characterization (TPR, XPS)

Relationship between sulphur resistance and electronic state of the metal on supported palladium catalysts. Arcoya et al., 62(1990)35

Catalyst characterization (TPR)

Selective catalytic reduction of nitric oxide over amorphous and crystalline chromia. I. Comparative study of activities. Curry-Hyde et al., 65(1990)211

Preparation and characterization of porous silica spheres containing a copper (oxide) catalyst. Van der Grift et al., 65(1990)225

Methanation sites on a low loading Ni/Al_2O_3 catalyst. Chen et al., 66(1990)283

Role of metal contaminants in the production of carbon dioxi. Doolin et al.,
de during the regeneration of cracking catalysts 71(1991)233

Influence of metal loading on the reducibility and hydrogenation activity of cobalt/alumina catalysts. Wang et al., 77(1991)223

Temperature-programmed reduction of MoO_x/SiO_x and MoO_x/Al_2O_3 catalysts: Surface structural consequences of impregnation acidity. Ismail et al., 72(1991)L1

Catalyst characterization (TPRd, TPD)

Structure and activity of composite oxide supported platinum–iridium catalysts. Subramanian et al., 74(1991)65

Catalyst characterization (TPS, TPO)

Temperature-programmed sulfidation and oxidation of Ni-Mo/alumina catalysts and reaction with ammonia. Zeuthen et al., 68(1991)117

Catalyst characterization (TPS)

Influence of phosphorus on the structure and the catalytic activity of sulphided carbon-supported Co–Mo catalysts. Magnus et al., 67(1990)119

Catalyst characterization (TPSR)

Synthesis of C_{2+} oxygenates from methanol at atmospheric pressure over alkali-promoted zinc–chromium oxide catalysts. Lietti et al., 70(1991)73

Catalyst characterization (various techniques)

Vanadium oxide monolayer catalysts: Preparation, characterization and catalytic activity – a review. Bond et al., 71(1991)1

Catalyst characterization (XPS, scanning Auger spectroscopy)

Supported Co–Mo thin film sulphide catalysts for hydrodesulphurization. II. Effects of catalyst surface structure on hydrodesulphurization activity. McIntyre et al., 63(1990)391

Catalyst characterization (XPS, XRD)

Phase and surface composition and dispersion of MoO_3 in MoO_3/Al_2O_3–SiO_2 catalysts. Henker et al., 61(1990)253

EuroPt-1 after various pretreatments: structure, surface composition and catalytic activity in methylcyclopentane reactions. Fülöp et al., 66(1990)319

Catalyst characterization (XPS)

XPS studies of Pt–Sn naphtha reforming catalysts. Stencel et al., 64(1990)71

Transformations of n-hexane of EuroPt-1 at low conversions. Paal et al., 66(1990)301

Regeneration of a sulfur poisoned Pd/Al_2O_3 catalyst during the selective hydrogenation of styrene. Argentiere et al., 61(1990)275

X-ray photoelectron spectroscopy study of supported noble metal catalysts prepared by spontaneous electrodeposition. Aleksic et al., 61(1990)63

X-ray photoelectron spectroscopic study of $CuSO_4$–MgO/SiO_2 catalysts for isoprene synthesis. Dang et al., 63(1990)259

X-ray photoelectron spectroscopic study of the electronic state of palladium in alkali metal doped Pd/SiO_2 solids. Pitchon et al., 63(1990)333

Ammoxidation of toluene by $YBa_2Cu_3O_{6+x}$ and copper oxides: Activity and XPS studies. Otamiri et al., 65(1990)159

Effect of metal-organic compounds on thiophene hydrodesulphurization over sulphided forms of fluoride-containing $CoMo/Al_2O_3$ catalysts. Sarbak et al., 69(1991)235

Catalyst characterization (XRD, FT-IR)

Catalytic oxidation of toxic organics in aqueous solution. Levec, 63(1990)L1

Catalyst characterization (XRD, XPS)

Physicochemical characterization and catalytic behavior of VPO formulations. Cornaglia et al., 74(1991)15

Catalyst characterization (XRD)

Oxidative coupling of methane over thoria based catalysts. Dubois et al., 67(1990)73

Preparation of a catalyst for hydrogenolysis of methyl oleate using hydrogen storage alloy. Tagawa et al., 61(1990)209

Reactivity and stability of sulphided thin films of molybdenum to dry air. Spevack et al., 64(1990)191

The effect of platinum modification by alloying and sulfur on the hydrogenolysis and aromatization of methylcyclopentane. Dees et al., 64(1990)279

Aromatization of ethane on platinum containing ZSM-5 zeolites. Steinberg et al., 66(1990)37

In-situ X-ray diffraction structural investigation of methanol synthesis catalysts derived from $CeCu_2$. Shaw et al., 67(1990)151

Detection of β-$NiMoO_4$ in oxidic nickel–molybdenum catalysts. Brito et al., 72(1991)L13

Effect of metal–support reaction on carburization of supported catalysts. I. Palladium on silica. Kepinski et al., 73(1991)173

Catalyst deactivation

Catalytic amination of 1-methoxy-2-propanol over silica supported nickel: Study of the influence of the reaction parameters. Bassili et al., 65(1990)293

Catalyst design

Designing FCC catalysts with high-silica Y zeolites. Scherzer, 75(1991)1

Catalyst performance

Cumene disproportionation over zeolite beta. I. Comparison of catalytic performances and reaction mechanisms of zeolites. Tsai et al., 77(1991)199

Catalyst preparation

Role of catalysts preparation and pretreatment in the stereoselective hydrogenation of thymol. Tungler et al., 79(1991)161

Catalyst preparation (acetone solution)

XPS studies of Pt–Sn naphtha reforming catalysts. Stencel et al., 64(1990)71

Catalyst preparation (additives)

Zirconia as a support for catalysts: Influence of additives on the thermal stability of the porous texture of monoclinic zirconia. Mercera et al., 71(1991)363

Catalyst preparation (alcohol refluxing)

Preparation of vanadium phosphorus oxide catalysts: Influence of macroscopic P:V ratio in determining phase composition after calcination. O'Connor et al., 64(1990)161

Catalyst preparation (alloy precursor)

In-situ X-ray diffraction structural investigation of methanol synthesis catalysts derived from $CeCu_2$. Shaw et al., 67(1990)151

Catalyst preparation (batch)
Solid-state NMR investigations of $AlPO_4$-8: Its transformation from VPI-5 and interaction with water. Stöker et al., 69(1991)L7

Catalyst preparation (calcination, ion exchange, steaming, precipitation)
Synthesis and characterization of silica–alumina prepared from tetraalkylammonium hydroxides. Corma et al., 63(1990)145

Catalyst preparation (chemical vapour deposition)
Catalytic and acidic properties of silica–alumina prepared by chemical vapour deposition. Sato et al., 62(1990)73

Catalyst preparation (citrate precipitation)
Dehydrogenation of methanol to methyl formate over copper-containing perovskite-type oxides. Rodriguez-Ramos et al., 68(1991)217

Catalyst preparation (co-impregnation)
Co-impregnation of rhodium chloride with hydrofluoric acid into dry and pre-wet alumina. Hepburn et al., 71(1991)205

Effect of calcination and water extraction on the distribution of the active components in the oxide form of phosphorus–nickel–molybdenum/alumina catalyst for hydrodesulfurization. Atanasova et al., 65(1990)53

Catalyst preparation (co-precipitation, wet impregnation)
Gas phase aldol condensation of n-butyraldehyde to 2-ethylhexenal. Moggi et al., 68(1991)285

Catalyst preparation (co-precipitation)
Selective oxidation of isobutene over multicomponent molybdate catalyst. Benyahia et al., 70(1991)149

Catalyst preparation (coated support)
Coated silica as support for platinum catalyst. II. Hydrogen chemisorption and activity for combustion. Dou et al., 66(1990)235

Catalyst preparation (cogelation)
Oligomerization of ethene and propene over composite zeolite catalysts. Yarlagadda et al., 62(1990)125

Catalyst preparation (colloidal processes)
Interrelation between structural and mechanical characteristics of spherical alumina granules and the initial hydroxide properties. Ismagilov et al., 69(1991)65

Catalyst preparation (complex impregnation)
New method for the preparation of hydrodesulphurization catalysts: Use of the molybdenum sulphur cluster compound $(NH_4)_2[Mo_3{}^{IV}S_{13}]$. Muller et al., 62(1990)L13

Catalyst preparation (coprecipitation)
Preparation and thermal reactivity of nickel/chromium and nickel/aluminium hydrotalcite-type precursors. Clause et al., 73(1991)217

Stabilized tetragonal zirconium oxide as a support for catalysts. Evolution of the texture and structure on calcination in static air. Mercera et al., 78(1991)79

Catalyst preparation (coprecipitation, impregnation)
Selective steam reforming of alkylated hydrocarbons and coal liquids over $NiO–Fe_2O_3$ catalysts. Yamamoto et al., 64(1990)55

Oxidative conversion of methane to C_2-hydrocarbons over lithium, manganese, cadmium and zinc promoted MgO catalysts. I. Catalyst performance in presence of free oxygen. Choudhary et al., 62(1990)171

Catalyst preparation (coprecipitation, wet impregnation)
Carbon monoxide hydrogenation over Na–Mn–Ni catalysts: Effects of preparation methods on the C_2+ oxygenate selectivity. Chuang et al., 70(1991)101

Catalyst preparation (crystallization)
Synthesis and characterization of the vanadium-incorporated molecular sieve VAPO-5. Jhung et al., 62(1990)61

Characteristics and performance of SAPO-34 catalyst for methanol-to-olefin conversion. Liang et al., 64(1990)31

Synthesis and characterization of a thermally stable vanadium-containing silicalite. Rigutto et al., 68(1991)L1

Catalyst preparation (deposition, impregnation)

Promotion of Pt/Al_2O_3 catalysts with chromium ions and investigation of the changes in their hydrogenating/dehydrogenating activity. Vlaev et al., 63(1990)293

Catalyst preparation (deposition)

Influence of the preparation method on the $V_2O_5/TiO_2/SiO_2$ catalysts in selective catalytic reduction of nitric oxide with ammonia. Wauthoz et al., 69(1991)149

Catalyst preparation (dry impregnation, incipient wetness)

Effect of support microporosity and preparation conditions on the reducibility of Pt/Al_2O_3 catalysts. Schwarz et al., 61(1990)L15

Catalyst preparation (dry method)

Heat-stable ultrafine single-crystal magnesium oxide and its character as a support-material for high-temperature combustion catalysts. Matsuura et al., 74(1991)273

Catalyst preparation (dry mixing)

Bicomponent catalyst for the selective formation of ethanol from synthesis gas. Ehwald et al., 76(1991)153

Catalyst preparation (electrodeposition)

X-ray photoelectron spectroscopy study of supported noble metal catalysts prepared by spontaneous electrodeposition. Aleksic et al., 61(1990)63

Catalyst preparation (extrusion, pelletization)

Effect of stirring, extrusion and pelletisation on high pressure propene oligomerisation and xylene isomerisation over ZSM-5. Schwarz et al., 68(1991)81

Catalyst preparation (extrusion)

Study of Ti–V–P–O catalysts for the selective reduction of nitric oxide in the presence of oxygen. Blanco et al., 63(1990)403

Catalyst preparation (gallium-ZSM-5)

Aromatization of ethane over gallium-promoted H-ZSM-5 catalysts. Schulz et al., 78(1991)15

Catalyst preparation (grinding)

Interaction of vanadia with alumina and titania during ultra-high intensity grinding at room temperature as evidenced from ^{51}V NMR spectra. Sobalik et al., 63(1990)191

Catalyst preparation (hydrothermal treatment, impregnation)

Synthesis of zeolite β and catalytic isomerization of n-hexane over $Pt/H\text{-}\beta$ catalysts. Leu et al., 69(1991)49

Catalyst preparation (hydrothermal)

Synthesis and characterization of iron-modified ZSM-5. Kim et al., 71(1991)55

Properties and applications of boron-containing pentasil type zeolites. Wendlandt et al., 66(1990)111

Shape selective catalysis by zeolite KZ-1: Synthesis, characterization and isomerization of *m*-xylene. Rane et al., 75(1991)281

Catalyst preparation (impregnation, basis adsorption, deposition–precipitation)

Effect of the method of preparation on the activity of nickel–Kieselguhr catalyst for vegetable oil hydrogenation. Mendioroz Echeverria et al., 66(1990)73

Catalyst preparation (impregnation, precipitation)

Synergy in $CdMoO_4/MoO_3$ catalysts in partial oxidation reactions of C_4 hydrocarbons. Ozkan et al., 62(1990)105

Catalyst preparation (impregnation, pyrolysis)

New type of carbon coated alumina supports for the preparation of highly active ruthenium catalysts for ammonia synthesis. Rama Rao et al., 62(1990)L19

Catalyst preparation (impregnation)

Phosphorus promotion of Mo/Al_2O_3 hydrotreating catalysts. Sajkowski et al., 62(1990)205

Recent progress in catalytic technology in Japan – a Review. Misono et al., 64(1990)1

Mechanism of sulfur poisoning of supported $Pd(Pt)/Al_2O_3$ catalysts for H_2–O_2 reaction. An et al., 66(1990)219

Aromatization of ethane on platinum containing ZSM-5 zeolites. Steinberg et al., 66(1990)37

Molybdate catalysts prepared by a novel impregnation method: Effect of citric acid as a ligand on the catalytic activities. Yoshimura et al., 79(1991)145

Effect of the nature of promoting chromium-containing compounds on the isomerization and dehydrocyclization activities of Pt–Cr/Al_2O_3 catalysts. Vlaev et al., 65(1990)11

Fourier transform-infrared study of the adsorption and coadsorption of nitric oxide, nitrogen dioxide and ammonia on vanadia–titania and mechanism of selective catalytic reduction. Ramis et al., 64(1990)259

Catalyst preparation (incipient wetness, in-situ)

Optimization of the selective semi-hydrogenation of phenylacetylene with supported palladium systems. Aramendia et al., 63(1990)375

Catalyst preparation (incipient wetness)

Relationship between sulphur resistance and electronic state of the metal on supported palladium catalysts. Arcoya et al., 62(1990)35

Methanation sites on a low loading Ni/Al_2O_3 catalyst. Chen et al., 66(1990)283

Cobalt/HZSM-5 zeolite catalyst for the conversion of syngas to hydrocarbons. Calleja et al., 68(1991)11

Catalyst preparation (ion exchange, XRD, FT-IR)

Toluene disproportionation reaction over modified HY and LaHY catalysts. Leu et al., 63(1990)91

Catalyst preparation (ion exchange)

Highly selective reduction of nitrogen oxides with hydrocarbons over H-form zeolite catalysts in oxygen-rich atmospheres. Hamada et al., 64(1990)L1

Adsorption and catalytic properties of Pd/SiO_2, Cu/SiO_2, and Pd–Cu/SiO_2 systems. I. Hydrogen, carbon monoxide and oxygen adsorption on Pd/SiO_2 and Cu/SiO_2. Leon y Leon et al., 69(1991)269

Mordenite with long life and selectivity for methanol conversion to gasoline: Mordenite modified by barium ion exchange, dealumination and chemical vapor deposition of silicon methoxide. Sawa et al., 64(1990)297

Cracking of n-decane over lanthanum-Y catalysts. Comparison of lanthanum-Y catalysts obtained by solid-state ion exchange and ion exchange in solution. Karge et al., 75(1991)343

Catalyst preparation (liquid saturation)

$BF_3.H_3PO_4$ catalyst preparation and use in the alkylation of naphthalene with propene. Calik et al., 66(1990)25

Catalyst preparation (metal doping)

Photocatalytic behaviour of metal doped titanium dioxide: Studies on the photochemical synthesis of ammonia on Mg/TiO_2 catalyst systems. Ileperuma et al., 62(1990)L1

Catalyst preparation (monolith)

Oxidative dimerization of methane over MgO and Li^+/MgO monoliths. Aigler et al., 70(1991)29

Catalyst preparation (organometallic compounds)

Effects of the interaction of dispersed metal particles with the support in catalysts prepared using organometallic compounds. V. Influence of group IVB ions on adsorption and catalytic properties of Pd/SiO_2. Alekseev et al., 63(1990)37

Catalyst preparation (pillaring)

Bulk alloy formation during metal ion poisoning of palladium. Mallát et al., 69(1991)85

Synthesis and characterization of pillared montmorillonite catalysts. Pesquera et al., 69(1991)97

Synthesis and characterization of titanium pillared clays. Influence of the temperature of preparation. Bernier et al., 77(1991)269

Catalyst preparation (polymerization)

Methanol carbonylation in a liquid flow system catalyzed by a polymer-bound rhodium(I) complex. Hjortkjaer et al., 67(1991)269

Catalyst preparation (precipitation, impregnation, grafting)

Titania-modified hydrodesulphurization catalysts. I. Effect of preparation techniques on morphology and properties of TiO_2–Al_2O_3 carrier. Wei et al., 63(1990)305

Catalyst preparation (precipitation)
Effects of the method of preparation of MgC_2O_4 as a support precursor on the properties of iron/magnesium oxide catalysts. Putanov et al., 73(1991)17

Surface properties of magnesium oxide obtained from magnesium hydroxide: Influence of preparation and calcination conditions of magnesium hydroxide. Choudhary et al., 71(1991)265

Preparation of zirconium oxide on silica and characterization by X-ray photoelectron spectroscopy, secondary ion mass spectrometry, temperature programmed oxidation and infra-red spectroscopy. Meijers et al., 70(1991)53

Catalyst preparation (precursors)
Stoichiometric composition of platinum, iridium and platinum–iridium catalytic precursors. Subramanian et al., 68(1991)131

Catalyst preparation (reduction)
Preparation and adsorption, chemical and catalytic properties of iron boride Fischer–Tropsch catalysts. Wang et al., 62(1990)221

Physicochemical characterization and catalytic behavior of VPO formulations. Cornaglia et al., 74(1991)15

Catalyst preparation (refilling)
Copper as a sacrificial deposit on noble metallic catalysts. Barbier et al., 67(1990)L1

Catalyst preparation (sol–gel method)
Aerogel catalysts – a review. Pajonk, 72(1991)217

Catalyst preparation (support)
Preparation and characterization of porous silica spheres containing a copper (oxide) catalyst. Van der Grift et al., 65(1990)225

Catalyst preparation (templates)
Synthesis of highly siliceous ZSM-5 using diaminoalkanes as templates. Howden et al., 73(1991)27

Catalyst preparation (templating)
Synthesis of $AlPO_4$-11 using long-chain secondary amines. Balakrishnan et al., 62(1990)L7

Catalyst preparation (thermal decomposition, coprecipitation)
Solid–solid interaction and electronic properties of copper–zinc oxide catalysts. Sengupta et al., 68(1991)1

Catalyst preparation (thermal decomposition)
Catalytic decomposition of nitrous oxide on $Cu_xCo_{3-x}O_4$ spinels. Sundararajan et al., 73(1991)165

Catalyst preparation (vapour deposition, wet impregnation)
Preparation and characterization by electrophoretic migration of TiO_2–Al_2O_3 catalytic supports. Gil Llimbas et al., 65(1990)45

Catalyst preparation (wet impregnation, solid/solid wetting)
Comparative activity study in thiophene hydrosulfurization of molybdena/alumina catalysts prepared by impregnation and solid/solid wetting. Korani et al., 64(1990)L5

Catalyst preparation (wet impregnation)
Platinum–tin complexing and its application to catalysis. Lei, 72(1991)33

Structure of phosphorus containing CoO–MoO_3/Al_2O_3. Mangnus et al., 61(1990)99

Role of impurities in the enhancement of C_2-oxygenates activity: Supported rhodium catalysts. Nonneman et al., 62(1990)L23

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Carbon dioxide reforming of methane with supported rhodium. Richardson et al., 61(1990)293

Co-impregnation of rhodium chloride with hydrofluoric acid into dry and pre-wet alumina. Hepburn et al., 71(1991)205

DRIFTS study of adsorbed formate species in the carbon dioxide and hydrogen reaction over rhodium catalysts. Benitez et al., 71(1991)219

Competition between ethyne, ethene and carbon monoxide for the active sites during hydrogenation at transient conditions over supported metal catalysts. Cider et al., 68(1991)191

Rhodium chloride

Co-impregnation of rhodium chloride with hydrofluoric acid into dry and pre-wet alumina. Hepburn et al., 71(1991)205

Rhodium/niobia

Carbon dioxide hydrogenation on rhodium supported on transition metal oxides: Effect of reduction temperature on product distribution. Trovarelli et al., 65(1990)129

Interaction of hydrogen and oxygen with niobia-supported and niobia-promoted rhodium catalysts. Hu et al., 69(1991)253

Rhodium/polymer

Aqueous phase hydroformylation of propene catalyzed over rhodium complexes immobilized on the poly(styrene–divinylbenzene) copolymer containing $-CH_2P(C_6H_4SO_3H)_2$ groups. Ro et al., 69(1991)169

Methanol carbonylation in a liquid flow system catalyzed by a polymer-bound rhodium(I) complex. Hjortkjaer et al., 67(1991)269

Rhodium/silica

Application of chemometric tools to catalysis: Carbon monoxide hydrogenation on a multipromoted Rh/SiO_2 catalyst. Henrion et al., 62(1990)23

Role of impurities in the enhancement of C_2-oxygenates activity: Supported rhodium catalysts. Nonneman et al., 62(1990)L23

Rhodium/titania

Carbon dioxide hydrogenation on rhodium supported on transition metal oxides: Effect of reduction temperature on product distribution. Trovarelli et al., 65(1990)129

Rhodium–molybdenum

Bimetallic catalysts comprised of dissimilar metals for the reduction of carbon monoxide with hydrogen. Foley et al., 61(1990)351

Rhodium–tungsten

Bimetallic catalysts comprised of dissimilar metals for the reduction of carbon monoxide with hydrogen. Foley et al., 61(1990)351

Ring opening

Direct and indirect promotion of Pd/Y by Ca^{2+} ions. Bai et al., 72(1991)165

EuroPt-1 after various pretreatments: structure, surface composition and catalytic activity in methylcyclopentane reactions. Fülöp et al., 66(1990)319

Selectivity changes in the ring-opening reaction of methylcyclopentane over rhodium catalysts caused by the addition of silver and metal–support interactions. Fenoglio et al., 63(1990)319

Rubidium

Side-chain alkylation of *p*-xylene with methanol on alkali cation zeolites. Yang et al., 71(1991)45

Ruthenium

Platinum/carbon oxidation catalysts. VIII. Selecting a metal for liquid-phase alcohol oxidations. Van Dam et al., 61(1990)187

Ruthenium catalyzed hydroformylation reactions using in situ generation of synthesis gas from aqueous methyl formate. Jenner, 75(1991)289

Hydrogenation of para chloronitrobenzene over supported ruthenium based catalysts. Tijani et al., 76(1991)255

Effect of barium addition on the ammonia synthesis activity of cesium promoted ruthenium catalyst supported on carbon-covered alumina (CCA). Rama Rao et al., 73(1991)L1

Selectivity to cyclohexene in the gas phase hydrogenation of benzene over ruthenium, as influenced by reaction modifiers. III. FT–IR study of the interaction between the reaction modifiers and cyclohexene. Struyk et al., 62(1990)151

Ruthenium/alumina

New type of carbon coated alumina supports for the preparation of highly active ruthenium catalysts for ammonia synthesis. Rama Rao et al., 62(1990)L19

Ruthenium/coal

Characterization of charcoal supported ruthenium catalysts: temperature programmed hydrogen titration of adsorbed oxygen. Menezo et al., 74(1991)L5

Ruthenium trichloride

Oxidation of 2-methylnaphthalene to 2-methyl-1,4-naphthaquinone with ammonium dichromate catalysed by $RuCl_3$. Chocron et al., 62(1990)119

Ruthenium–molybdenum

Bimetallic catalysts comprised of dissimilar metals for the reduction of carbon monoxide with hydrogen. Foley et al., 61(1990)351

Ruthenium–tungsten

Bimetallic catalysts comprised of dissimilar metals for the reduction of carbon monoxide with hydrogen. Foley et al., 61(1990)351

Rutile

Vanadia/titania catalysts in selective catalytic reduction of nitric oxide with ammonia. Cai et al., 78(1991)241

S

Salt melt

Oxidative dehydrogenation of propane in lithium hydroxide/lithium iodide melts. Slagtern et al., 77(1991)163

Samarium catalysts

Influence of the presence of chlorine on the selectivity to ethane and ethene during methane coupling over samarium-based catalysts. Burch et al., 79(1991)265

Samarium oxide

TAP reactor investigation of methane coupling over samarium oxide catalysts. Statman et al., 77(1991)45

SAPO-37

Oxidizing and reducing properties of SAPO-37 molecular sieve. Comparison with acidity and catalysis. Su et al., 75(1991)311

SAPO-5

Silicon species in a SAPO-5 molecular sieve. Wang et al., 72(1991)39

SAPO-8

Transformation of MCM-9 into SAPO-8 by various post-synthesis treatments. Maistriau et al., 67(1991)L11

Saturated hydrocarbons

Carbon monoxide hydrogenation over iron oxide, subjected to shear deformation under high pressure: role of vacancies. Morozova et al., 78(1991)227

Scheelite-oxide

Selective oxidation of propane involving homogeneous and heterogeneous steps over multicomponent metal oxide catalysts. Kim et al., 70(1991)175

Scheelite-type catalyst

Selective ammoxidation of propane involving homogeneous and heterogeneous steps over multicomponent metal oxide catalysts. Kim et al., 70(1991)189

Schulz-Flory distribution

Mixed alcohol synthesis from carbon monoxide and dihydrogen over potassium-promoted molybdenum carbide catalysts. Woo et al., 75(1991)267

Sea minerals

Catalysis of carbon monoxide methanation by deep sea manganate minerals. Cabrera et al., 64(1990)309

Secondary methane activation

Partial oxidation of methane to formaldehyde on chlorine-promoted catalysts. Baldwin et al., 75(1991)153

Selective catalytic reduction

Vanadia/titania catalysts in selective catalytic reduction of nitric oxide with ammonia. Cai et al., 78(1991)241

Role of WO_3 in mixed V_2O_5–WO_3/TiO_2 catalysts for selective catalytic reduction of nitric oxide with ammonia. Yang et al., 80(1992)135

Fourier transform-infrared study of the adsorption and coadsorption of nitric oxide, nitrogen dioxide and ammonia on vanadia–titania and mechanism of selective catalytic reduction. Ramis et al., 64(1990)259

Selective oxidation

Investigation of the partial oxidation of hydrocarbons on methane coupling catalysts. Burch et al., 65(1990)259

Selective oxidation of isobutene over multicomponent molybdate catalyst. Benyahia et al., 70(1991)149

Physicochemical characterization and catalytic behavior of VPO formulations. Cornaglia et al., 74(1991)15

Influence of sulfur dioxide on catalytic removal of nitric oxide over copper ion-exchanged ZSM-5 zeolite. Iwamoto et al., 69(1991)L15

Selective reduction

Cu-ZSM-5 zeolite as highly active catalyst for removal of nitrogen monoxide from emission of diesel engines. Sato et al., 70(1991)L1

Transition metal-promoted silica and alumina catalysts for the selective reduction of nitrogen monoxide with propane. Hamada et al., 75(1991)L1

Selectivity

Acid–base bifunctional catalysis in the decomposition of alkylamines. Xu et al., 75(1991)75

Adsorption and catalytic properties of Pd/SiO_2, Cu/SiO_2, and $Pd–Cu/SiO_2$ systems. III. Carbon monoxide and benzene hydrogenation over $Pd–Cu/SiO_2$ catalysts. Leon y Leon et al., 69(1991)305

Selectivity (*N*-tert.-butylarylamines

Synthesis of *N*-tert.-butyl aromatic amines via heterogeneous acid catalysis. Dixon et al., 62(1990)161

Selectivity (1-butene)

Industrial scale selective high-temperature conversion of 2-butene to 1-butene. I. Development of catalysts. Forlani et al., 67(1991)237

Selectivity (2-amino-1-methoxypropane)

Catalytic amination of l-methoxypropan-2-ol over silica supported nickel. Modelling of reaction kinetics. Bassili et al., 70(1991)325

Catalytic amination of 1-methoxy-2-propanol over silica supported nickel: Study of the influence of the reaction parameters. Bassili et al., 65(1990)293

Selectivity (acetaldehyde)

Selective conversion of ethane into acetaldehyde by the photo-catalytic oxidation with oxygen over a supported molybdenum catalyst. Wada et al., 74(1991)L1

Selectivity (acetic acid)

Selective oxidation of propene over supported vanadium oxide catalysts. Lopez Nieto et al., 61(1990)235

Selectivity (acrolein)

Solid electrolyte potentiometry aided study of the oxidation of propene and copper oxides: Phase-composition and selectivity. Hildenbrand et al., 65(1990)241

Selectivity (alcohols)

Alcohol synthesis from syngas on alumina-supported iridium-based catalysts: Effects of transition-metal compound additives. Inoue et al., 67(1991)203

Mixed alcohol synthesis from carbon monoxide and dihydrogen over potassium-promoted molybdenum carbide catalysts. Woo et al., 75(1991)267

Selectivity (alkenes)

Oligomerization of ethene and propene over composite zeolite catalysts. Yarlagadda et al., 62(1990)125

Preparation and adsorption, chemical and catalytic properties of iron boride Fischer–Tropsch catalysts. Wang et al., 62(1990)221

Catalytic investigation of the dehydrogenation properties of pentasyl type zeolites as compared with their cracking properties. Bandiera et al., 62(1990)309

Study of iron/mordenite catalysts by Mössbauer and ferromagnetic resonance spectroscopy for carbon monoxide hydrogenation. Yun et al., 68(1991)97

Carbon monoxide hydrogenation over iron oxide, subjected to shear deformation under high pressure: role of vacancies. Morozova et al., 78(1991)227

Selectivity (anisole, *o*-cresol, *p*-cresol, 2,6-xylenol, methylanisole)

Catalytic alkylation of phenol with methanol: factors influencing activities and selectivities. I. Effect of different acid sites evaluated by studying the behaviour of the catalysts: γ-alumina, Nafion-H, silica–alumina and phosphoric acid. Santacesaria et al., 64(1990)83

Selectivity (aromatic hydrocarbons, alkanes)

Promotion of Pt/Al_2O_3 catalysts with chromium ions and investigation of the changes in their hydrogenating/dehydrogenating activity. Vlaev et al., 63(1990)293

Selectivity (aromatic-rich gasoline)

Selective conversion of syngas to alkenes and aromatic-rich gasoline on iron–manganese–ruthenium containing composite catalysts. Inui et al., 61(1990)219

Selectivity (aromatics)

Aromatization of ethane on platinum containing ZSM-5 zeolites. Steinberg et al., 66(1990)37

Effect of pressure on the transformation of methanol into hydrocarbons on an amorphous silica–alumina. Comelli et al., 73(1991)185

Selectivity (benzaldehyde)

Catalytic oxidation of toluene over V_2O_5–WO_3 catalysts. Yan et al., 66(1990)149

Selectivity (benzene, cyclohexane)

The effect of platinum modification by alloying and sulfur on the hydrogenolysis and aromatization of methylcyclopentane. Dees et al., 64(1990)279

Selectivity (benzene, toluene)

Possible advantages due to sulfidation of reforming catalysts working under conditions of strong self-poisoning. Wilde et al., 65(1990)117

Selectivity (benzene)

Nickel–molybdenum catalysts prepared by reduction of ammonium triammine tetranickel pentamolybdate. Astier et al., 72(1991)321

Selectivity (benzonitrile)

Ammoxidation of toluene by $YBa_2Cu_3O_{6+x}$ and copper oxides: Activity and XPS studies. Otamiri et al., 65(1990)159

Selectivity (branched isomers)

Selective conversion of decane into branched isomers: a comparison of Pt/ZSM-22, Pt/ZSM-5 and Pt/USY zeolite catalysts. Martens et al., 76(1991)95

Selectivity (butadiene)

Effect of steam on the oxidative dehydrogenation of butene over magnesium ferrites with and without chromium substitution. Yang et al., 70(1991)161

Selectivity (butene)

Reactor studies using alumina separation membranes for the dehydrogenation of methanol and n-butane. Zaspalis et al., 74(1991)223

Selectivity (C_2 hydrocarbons)

Oxidative coupling of methane over yttria-doped zirconia solid electrolyte. Seimanides et al., 68(1991)41

Methane oxidative coupling to C_2 hydrocarbons over lanthanum promoted barium catalysts. Zhang et al., 62(1990)L29

Oxidative conversion of methane to C_2-hydrocarbons over lithium, manganese, cadmium and zinc promoted MgO catalysts. I. Catalyst performance in presence of free oxygen. Choudhary et al., 62(1990)171

Structure of unpromoted and alkali-metal promoted MnO_x-based catalysts for oxidative coupling of methane. Baronetti et al., 61(1990)311

Selectivity (C_2 oxygenates)

Selectivities in carbon monoxide hydrogenation on rhodium catalysts as a function of surface reaction rate constants. Mori et al., 66(1990)59

Selectivity (C_6+ hydrocarbons)
Cobalt/HZSM-5 zeolite catalyst for the conversion of syngas to hydrocarbons. Calleja et al., 68(1991)11

Selectivity (C_1–C_3 hydrocarbons, methanol)
Catalytic behaviour of some glassy alloys to the Fischer–Tropsch reaction at high pressures. Albertos et al., 65(1990)85

Selectivity (C_2+ hydrocarbons)
Catalytic properties of NiX zeolites in the presence of cerium additives. Chien et al., 61(1990)45

Effect of pressure on the oxidative coupling reaction of methane. Ekstrom et al., 62(1990)253

Selectivity (C_3+ hydrocarbons)
Effect of ethene addition during the Fischer–Tropsch reaction. Adesina et al., 62(1990)295

Selectivity (C_5+ gasoline)
Effect of feedstock variability on catalytic cracking yields. Fisher, 65(1990)189

Selectivity (C_2+ hydrocarbons, ethane, ethene)
Promotion of methane conversion catalysts into higher hydrocarbons. Machocki et al., 72(1991)283

Selectivity (C_2–C_4 hydrocarbons)
Effects of addition of chromium, manganese or molybdenum to iron catalysts for carbon dioxide hydrogenation. Lee et al., 72(1991)267

Selectivity (carbon monoxide, hydrogen)
Carbon dioxide reforming of methane with supported rhodium. Richardson et al., 61(1990)293

Selectivity (cyclohexene)
Selectivity to cyclohexene in the gas phase hydrogenation of benzene over ruthenium, as influenced by reaction modifiers. III. FT–IR study of the interaction between the reaction modifiers and cyclohexene. Struyk et al., 62(1990)151

Selectivity (dichlorobenzene)
Isomerization of *o*-dichlorobenzene over zeolites: Effect of the zeolite structure. Coq et al., 62(1990)281

Selectivity (dimethyl ether)
Kinetics of methanol dehydration on dealuminated H-mordenite: Model with acid and basic active centres. Bandiera et al., 69(1991)139

Selectivity (double bond shift, cracking products)
Activity and selectivity of 1-hexene conversion on SAPO-11 and Pd/SAPO-11. Choung et al., 64(1990)173

Selectivity (ethane, ethene)
Selective oxidation of methane to ethane and ethene with metal oxides in molten metals
Effect of carbon tetrachloride as a feedstream additive in the oxidative coupling of methane on alkali oxide/SiO_2 catalysts. Ahmed et al., 63(1990)129

Oxidative coupling of methane in molten barium hydroxide at 800°C. Moneuse et al., 63(1990)67

Oxidative dimerization of methane over MgO and Li^+/MgO monoliths. Aigler et al., 70(1991)29

Influence of the presence of chlorine on the selectivity to ethane and ethene during methane coupling over samarium-based catalysts. Burch et al., 79(1991)265

Selectivity (ethanol)
Application of chemometric tools to catalysis: Carbon monoxide hydrogenation on a multipromoted Rh/SiO_2 catalyst. Henrion et al., 62(1990)23

New vanadium–copper–zinc catalysts, their characterization and use in the catalytic dehydrogenation of ethanol. Kanoun et al., 70(1991)225

Selectivity (ethene, C_2–C_4 alkenes)
Characteristics and performance of SAPO-34 catalyst for methanol-to-olefin conversion. Liang et al., 64(1990)31

Selectivity (ethene)
MnAPO-5 as catalyst for ethane oxydehydrogenation. Wan et al., 73(1991)113

Oxidative dehydrogenation of ethane on vanadium–molybdenum oxide and vanadium–niobium–molybdenum oxide catalysts. Burch et al., 70(1991)129

Conversion of ethanol in aqueous solution over ZSM-5 zeolites: Influence of reaction parameters and catalyst acidic properties as studied by ammonia TPD technique. Le Van Mao et al., 61(1990)161

Selectivity (ethylbenzene, ethylcyclohexane)
Relationship between sulphur resistance and electronic state of the metal on supported palladium catalysts. Arcoya et al., 62(1990)35

Selectivity (ethylbenzene)
Regeneration of a sulfur poisoned Pd/Al_2O_3 catalyst during the selective hydrogenation of styrene. Argentiere et al., 61(1990)275

Selectivity (ethylene oxide)
Influence of feed water vapour on the selective oxidation of ethylene over silver catalyst. Liu et al., 61(1990)265

Ethene epoxidation over silver catalysts in the presence of carbon monoxide and hydrogen. Yong et al., 62(1990)189

Selectivity (formaldehyde, acetaldehyde)
Catalytic activities of hydrogen storage alloys for decomposition of alcohols. Imai et al., 62(1990)348

Selectivity (formaldehyde)
Reactions of methanol over catalytically active alumina membranes. Zaspalis et al., 74(1991)205

Reactor studies using alumina separation membranes for the dehydrogenation of methanol and n-butane. Zaspalis et al., 74(1991)223

The reactions of methanol over alumina catalytically active membranes modified by silver. Zaspalis et al., 74(1991)235

Partial oxidation of methane to formaldehyde on chlorine-promoted catalysts. Baldwin et al., 75(1991)153

Multicomponent oxide catalysts for the oxidation of methanol to formaldehyde. Klissurski et al., 77(1991)55

Influence of homogeneous gas phase reactions in the partial oxidation of methane to methanol and formaldehyde in the presence of oxide catalysts. Baldwin et al., 74(1991)137

Selectivity (gasoline, octane)
Recent process- and catalyst-related developments in fluid catalytic cracking – a review. Biswas et al., 63(1990)197

Selectivity (gasoline)
Gas oil cracking at the zeolite–matrix interface. Corma et al., 66(1990)247

Designing FCC catalysts with high-silica Y zeolites. Scherzer, 75(1991)1

Hydrogenation of carbon monoxide over cobalt–nickel alloy catalyst supported on $MnO–ZrO_2$ mixed oxide. Ishihara et al., 66(1990)267

Mordenite with long life and selectivity for methanol conversion to gasoline: Mordenite modified by barium ion exchange, dealumination and chemical vapor deposition of silicon methoxide. Sawa et al., 64(1990)297

Selectivity (hexane)
Selectivity changes in the ring-opening reaction of methylcyclopentane over rhodium catalysts caused by the addition of silver and metal–support interactions. Fenoglio et al., 63(1990)319

Selectivity (higher alcohols)
Synthesis of C_{2+} oxygenates from methanol at atmospheric pressure over alkali-promoted zinc–chromium oxide catalysts. Lietti et al., 70(1991)73

Selectivity (higher hydrocarbons)
Effect of ethene addition during the Fischer–Tropsch reaction. Adesina et al., 62(1990)295

Selectivity (hydrocarbons, alkenes)
Fixed bed and slurry reactor studies of Fischer–Tropsch synthesis on precipitated iron catalyst. Bukur et al., 61(1990)329

Selectivity (isobutane)
Paltinum/alumina. III. Influence of chloride on methylcyclopropane hydrogenolysis at moderate temperatures. Ollendorff et al., 62(1990)85

Selectivity (isomerization)
Hydroconversion of n-nonane catalyzed by PdHY zeolites. I. Influence of catalyst pretreatment. Leglise et al., 69(1991)15

Selectivity (light alkenes)
Conversion of carbon oxide(s) on carbon-supported, nickel–rare earth catalysts. Barrault et al., 67(1991)257

Selectivity (maleic anhydride, phthalic anhydride)
Catalytic oxidation of cyclopentadiene over supported vanadium pentoxide–silver catalysts. Jun et al., 63(1990)267

Selectivity (maleic anhydride)
Synergy in $CdMoO_4/MoO_3$ catalysts in partial oxidation reactions of C_4 hydrocarbons. Ozkan et al., 62(1990)105

Selectivity (methanol)
Copper surface area and activity in $CO/H_2/CO_2$ of $Cu/ZnO/Al_2O_3$ methanol synthesis catalysts. Robinson et al., 63(1990)165

Effects of promoters of palladium/silica catalysts for the synthesis of methanol. Hahm et al., 65(1990)1

Selectivity (methyl formate)
Dehydrogenation of methanol to methyl formate over copper-containing perovskite-type oxides. Rodriguez-Ramos et al., 68(1991)217

Selectivity (methyl metacrylate)
Reaction of propionic acid with methylal over vanadium–silicon–phosphorus oxide. Ai, 63(1990)365

Catalytic properties of hydrated tantalum oxide. Ushikubo et al., 67(1990)25

Selectivity (methylene diphenyl diurethane)
Acid catalysed condensation of methyl *N*-phenylcarbamate. Lee et al., 66(1990)11

Selectivity (nitriles)
Characteristic action of zirconium dioxide in the decomposition of alkylamines. Xu et al., 64(1990)41

Selectivity (nitrogen vs. nitrous oxide)
Selective catalytic reduction of nitric oxide over amorphous and crystalline chromia. I. Comparative study of activities. Curry-Hyde et al., 65(1990)211

Selectivity (nitrogen)
Reactor studies using vanadia modified titania and alumina catalytically active membranes for the reduction of nitrogen oxide with ammonia. Zaspalis et al., 74(1991)249

Selectivity (*ortho*-)
Ortho-selective alkene alkylation of arylamines via acid catalysis. Burgoyne et al., 63(1990)117

Selectivity (oxirane)
Modelling of the inhibiting effect of carbon dioxide on the selective oxidation of ethene over silver catalyst. Eliyas et al., 62(1990)11

Selectivity (oxygenates)
Role of impurities in the enhancement of C_2-oxygenates activity: Supported rhodium catalysts. Nonneman et al., 62(1990)L23

Bicomponent catalyst for the selective formation of ethanol from synthesis gas. Ehwald et al., 76(1991)153

Selectivity (propene)
Selective hydrogenation of propyne over an ion-exchanged copper on silica catalyst. Wehrly et al., 66(1990)199

Selectivity (propionaldehyde)
Reduction of propionitrile to propionaldehyde on supported palladium catalysts. II. Optimum in selectivity. Mallat et al., 66(1990)91

Selectivity (several reactions)
Aerogel catalysts – a review. Pajonk, 72(1991)217

Selectivity (shape-)
Shape selective catalysis by ZSM-35 zeolites. Disproportionation of ethylbenzene and isomerization of *m*-xylene. Rane et al., 69(1991)177

Shape selective catalysis by zeolite KZ-1: Synthesis, characterization and isomerization of *m*-xylene. Rane et al., 75(1991)281

Catalytic alkylation of phenol with methanol: factors influencing activities and selectivities. II. Effect of intracrystalline diffusion and shape selectivity on H-ZSM5 zeolite. Santacesaria et al., 64(1990)101

Selectivity (vinylation)
Carboxylic acid transvinylation as catalysed by complexes of palladium acetate with phenanthroline-like ligands. Ketterling et al., 66(1990)123

Selectivity (xylene isomerization)
Isomerization and disproportionation of *m*-xylene over zeolite β. Pérez-Pariente et al., 69(1991)125

Selectivity (xylene)
Properties and applications of boron-containing pentasil type zeolites. Wendlandt et al., 66(1990)111

Selectivity (xylenol)
Alkylation of phenol over simple oxides and supported vanadium oxides. Venkat Rao et al., 61(1990)89

Selectivity modifications
Modifications of surface properties of nickel/silica catalysts by nitrogen-containing compounds. Part I: Ammonia. Borgna et al., 76(1991)233

Modifications of surface properties of nickel/silica catalysts by nitrogen-containing compounds. II. Piperidine, 3,5 dimethyl piperidine and pyridine. Borgna et al., 80(1992)115

Selectivity shifts
Identification of active sites of reforming catalysts by poisoning. Dees et al., 72(1991)343

Semiconductivity (p-type)
Common features of oxidative coupling of methane cofeed catalysts. Dubois et al., 67(1990)49

Semiconductors
Oxidative coupling of methane over thoria based catalysts. Dubois et al., 67(1990)73

Electrical conductivity and defect structure of lithium-doped magnesium oxide. Norby et al., 71(1991)89

Sensor
Platinum–tin complexing and its application to catalysis. Lei, 72(1991)33

Side-chain alkylation
Side-chain alkylation of *p*-xylene with methanol on alkali cation zeolites. Yang et al., 71(1991)45

Side-chain cyclization
Retained and desorbed products from reaction of 1-octene over H-ZSM5 zeolite. Anderson et al., 75(1991)87

Silanization
Acid–base bifunctional catalysis in the decomposition of alkylamines. Xu et al., 75(1991)75

Silica
Fixed bed and slurry reactor studies of Fischer–Tropsch synthesis on precipitated iron catalyst. Bukur et al., 61(1990)329

Alkylation of phenol over simple oxides and supported vanadium oxides. Venkat Rao et al., 61(1990)89

Gas phase aldol condensation of n-butyraldehyde to 2-ethylhexenal. Moggi et al., 68(1991)285

Selective ion exchange of palladium on alumina–silica composite oxides. Contescu et al., 74(1991)95

Transition metal-promoted silica and alumina catalysts for the selective reduction of nitrogen monoxide with propane. Hamada et al., 75(1991)L1

Effects of hydroxylation of a silica surface on the metal dispersion in supported platinum catalysts. Arai et al., 77(1991)141

Methylbutynol: a new and simple diagnostic tool for acidic and basic sites of solids. Lauron-Pernot et al., 78(1991)213

Reaction of nitric oxide with metal-loaded carbon in the presence of oxygen. Yamashita et al., 78(1991)L1

Factors controlling the reactivity of the silica surface in methane partial oxidation. Parmaliana et al., 78(1991)L7

Silica/alumina
Catalytic cracking of hexadecane over ZSM-5 modified with $SiCl_4$, BCl_3, NH_4F and $LaCl_3$. Li et al., 71(1991)185

Silica/boric anhydride
Catalytic cracking of hexadecane over ZSM-5 modified with $SiCl_4$, BCl_3, NH_4F and $LaCl_3$. Li et al., 71(1991)185

Silica deposition
Cumene disproportionation over zeolite beta. II. Stability enhancement with silica deposition and steam pretreatment. Tsai et al., 77(1991)209

Silica spheres
Preparation and characterization of porous silica spheres containing a copper (oxide) catalyst. Van der Grift et al., 65(1990)225

Silica supports
Effect of cobalt source on the reduction properties of silica-supported cobalt catalysts. Rosynek et al., 73(1991)97

Silica–alumina
Oligomerization of ethene and propene over composite zeolite catalysts. Yarlagadda et al., 62(1990)125

Catalytic and acidic properties of silica–alumina prepared by chemical vapour deposition. Sato et al., 62(1990)73

Synthesis and characterization of silica–alumina prepared from tetraalkylammonium hydroxides. Corma et al., 63(1990)145

Use of principal component analysis in catalyst characterization: Catalytic cracking of decalin over Y-zeolites. Mostad et al., 64(1990)119

Silica–alumina

Characteristic action of zirconium dioxide in the decomposition of alkylamines. Xu et al., 64(1990)41

Acid–base properties of silica–aluminas: Use of 1-butanol dehydration as a test reaction. Berteau et al., 70(1991)307

Effect of pressure on the transformation of methanol into hydrocarbons on an amorphous silica–alumina. Comelli et al., 73(1991)185

Acid–base bifunctional catalysis in the decomposition of alkylamines. Xu et al., 75(1991)75

Multinuclear high-resolution solid-state nuclear magnetic resonance studies of amorphous silica–aluminas. Doremieux-Morin et al., 77(1991)149

Methylbutynol: a new and simple diagnostic tool for acidic and basic sites of solids. Lauron-Pernot et al., 78(1991)213

Catalytic alkylation of phenol with methanol: factors influencing activities and selectivities. I. Effect of different acid sites evaluated by studying the behaviour of the catalysts: γ-alumina, Nafion-H, silica–alumina and phosphoric acid. Santacesaria et al., 64(1990)83

Silicate

Characterization and catalytic properties of chromium-containing silicates. Sugimoto et al., 80(1992)13

Silicon

Silicon species in a SAPO-5 molecular sieve. Wang et al., 72(1991)39

Acidity of silicon modified CoAPO-5 molecular sieves. Borade et al., 80(1992)59

Silicon/aluminium

Isomerization of n-hexane on platinum dealuminated mordenite catalysts: I. Influence of the silicon-to-aluminium ratio of the zeolite. Guisnet et al., 71(1991)283

Isomerization of n-hexane on platinum dealuminated mordenite catalysts. II. Kinetic study. Guisnet et al., 71(1991)295

Silicon/aluminium ratio

Toluene disproportionation over ZSM-5 zeolite: effects of crystal size silicon-to-aluminium ratio, activation method and pelletization. Uguina et al., 76(1991)183

Silicon-to-aluminium ratio

Isomerization of *o*-dichlorobenzene over zeolites: Effect of the zeolite structure. Coq et al., 62(1990)281

Silver

Ethene epoxidation over silver catalysts in the presence of carbon monoxide and hydrogen. Yong et al., 62(1990)189

Selectivity changes in the ring-opening reaction of methylcyclopentane over rhodium catalysts caused by the addition of silver and metal–support interactions. Fenoglio et al., 63(1990)319

Silver/alumina

Influence of feed water vapour on the selective oxidation of ethylene over silver catalyst. Liu et al., 61(1990)265

Modelling of the inhibiting effect of carbon dioxide on the selective oxidation of ethene over silver catalyst. Eliyas et al., 62(1990)11

Diffuse reflectance Fourier-transform IR studies on the role of catalyst support on selectivity in ethene oxidation. Connor et al., 71(1991)247

Oxide catalysed reactions of ethylene oxide under conditions relevant to ethylene epoxidation over supported silver. Yong et al., 76(1991)31

Silver-modified alumina

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Silver oxide
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